



Anti-Theft Detectors, Airport Security Systems, & Cellular Phones

Anti-Theft Detectors

These are commonly used in stores and libraries and operate on the principle of generating electromagnetic interference (EMI) fields that can “sense” embedded “tags” on the merchandise being protected. It may be possible, under unique circumstances, for these same interference fields to affect the operation of an implanted pacemaker or defibrillator.

Significant effects from the interference are unlikely to occur if you pass “normally” through the detectors because the interference ends as soon as you walk through (or move away from) the anti-theft equipment. It is recommended that you:

- Become aware of anti-theft detectors,
- Walk through at a “normal” walking speed, and
- Do not linger close to the detection system equipment.

If you are near an anti-theft system and you feel symptoms, move promptly away from the equipment. Your pacemaker or defibrillator will resume its previous state of operation when you move away from the source of interference.

Airport Security Systems

These are less likely to affect the operation of a pacemaker or defibrillator. However, airport security systems (both the walk-through archways and hand-held wands) are metal detectors. Therefore, when you walk through the security archway at a normal walking speed, it may detect the metal of your pacemaker or defibrillator. Because the metal detector cannot determine whether or not you are carrying a dangerous metal object (such as a weapon), you may be asked to undergo additional search methods. If so, it is helpful to show your device identification card. Then, if you have a pacemaker, ask to be cleared with a hand-held screening wand held away from the pacemaker, or request a hand search. If you have a defibrillator, ask for only a hand search because a screening wand has the potential to cause a defibrillation therapy.

Cellular Phones

You may already have a pacemaker or defibrillator that is engineered with the newest technology to specifically resist today's cellular phone interference. Even if it does not, or if you are uncertain, simply follow the standard use guidelines that have been developed by the industry.

- Maintain a distance of 6 inches (15 centimeters) between a hand-held cellular phone and the implanted device. For portable and mobile cellular phones (phones transmitting above 3 watts), keep a distance of 12 inches (30 centimeters) between the antenna and the implanted device.
- Hold the phone to the ear opposite the side of the implanted device.
- Do not carry the phone in a breast pocket or on a belt over or within 6 inches (15 centimeters) of the implanted device.

For more information regarding cellular phones, see our handout on ***Cellular Phones***.